

REMARKS**Status of the Claims**

Claims 1, 27, 29, 30, 32, 35 and 45-56 are pending in this application. No claims have been added. Claim 6 has been canceled. Claim 1 has been amended to redefine the Markush group and to change "not less than" to "not more than" to clarify the ratio of Mw/Mn. Claims 29, 30, 32 and 35 are also amended to define the reactants to produce the olefin. Claim 29 has also been amended to correct a typographical error. This amendment is a non-narrowing amendment to correct grammar. No new matter has been added by the above claim amendments.

Rejection under 35 USC 112, first paragraph

The Examiner rejects claim 1 as not enabled by the specification for the molecular weight ratio of not less than 1.5. Applicants amend claim 1 to recite that the molecular weight ratio is "not more than 1.5". Support for this claim element is found in the original specification and claims. As such, one of ordinary skill in the art would know how to make and use the present invention as described in the specification and claims. This amendment is not a narrowing amendment, as "less than 1.5" does not include 1.5, wherein "not more than 1.5" includes 1.5 in the range. Thus, Applicants respectfully request that the rejection be withdrawn.

Rejections under 35 USC 102(b)

The Examiner rejects claims 1, 6 and 27 as anticipated by U.S. Patent 5,902,684 to Bullard et al. (Bullard '684). Applicants traverse the rejection and respectfully request the withdrawal thereof.

Applicants cancel claim 6. Thus, this rejection is moot as to claim 6. Regarding claims 1 and 27, Applicants amend claim 1 to redefine the Markush group of the polymer to polypropylene having Mn of not less than 500, melting point of not lower than 70°C and a racemic diad (R), as measured by ¹³ C-NMR, of not less than 0.85, polybutene having Mn of not less than 500, melting point of not lower than 70°C and a racemic diad (R), as measured by ¹³ C-NMR, of not less than 0.85, and a copolymer of propylene and at least one olefin selected from olefins of 4 to 20 carbon atoms, dienes and cycloolefins, having Mn of not less than 500.

Bullard '684 merely discloses polyethylene and ethylene copolymer, such as LLDPE. However, Bullard '684 fails to disclose polymers of polypropylene, polybutene and propylene/C4-20 copolymer as recited in the presently claimed invention. As such, this rejection should be withdrawn as not all of the claim elements are disclosed.

The Examiner also rejects claims 1 and 6 as anticipated by U.S. Patent 5,449,724 to Moffat et al. (Moffat '724). Applicants

traverse the rejection and respectfully request the withdrawal thereof.

Applicants cancel claim 6. Thus, this rejection is moot as to claim 6. Regarding claim 1, Applicants amend claim 1 to redefine the Markush group of the polymer to polypropylene having Mn of not less than 500, melting point of not lower than 70°C and a racemic diad (R), as measured by ¹³ C-NMR, of not less than 0.85, polybutene having Mn of not less than 500, melting point of not lower than 70°C and a racemic diad (R), as measured by ¹³ C-NMR, of not less than 0.85, and a copolymer of propylene and at least one olefin selected from olefins of 4 to 20 carbon atoms, dienes and cycloolefins, having Mn of not less than 500.

Moffat '724 merely discloses polyethylene homopolymer and copolymer only. However, Moffat '724 fails to disclose polymers of polypropylene, polybutene and propylene/C₄₋₂₀ copolymer as recited in the presently claimed invention. As such, this rejection should be withdrawn.

Rejection under 35 USC 102(b) or 103(a)

The Examiner rejects claims 1, 6, 27, 29 and 45-56 as anticipated by or in the alternative obvious over EP 874,005 (EP '005). Applicants traverse the rejection and respectfully request the withdrawal thereof.

This rejection is moot as to claim 6, since claim 6 has been canceled. Applicants offer the following arguments with respect to the remaining claims.

EP '005 discloses olefin polymerization catalysts. However, the polymers disclosed in EP '005 are polyethylene (see examples 1-130) and ethylene/propylene copolymer (see examples 131-149). Applicants submit that EP '005 fails to disclose all the elements of the presently claimed invention. EP '005 fails to disclose polypropylene, polybutene and propylene/C₄₋₂₀ copolymer as recited in the presently claimed invention. As such, the anticipation rejection should be withdrawn.

Applicants also submit that an alternative obviousness rejection should also be withdrawn for failure to establish a prima facie case of obviousness. EP '005 fails to suggest all the elements of the present invention. At best, EP '005 discloses using similar catalysts. However, Applicants submit that even if the same catalyst is used in some instances, the reactivity of the monomers is different, thus failing to produce polymers as recited in the present claims. Moreover, there is no suggestion or motivation in EP '005 to modify the ethylene to another monomer unit to arrive at the present invention.

As such, Applicants respectfully request that the alternative obviousness rejection be withdrawn as no prima facie case of obviousness has been established.

The Examiner also rejects claims 1, 6, 27, 29, 30 and 45-56 as anticipated by or obvious over EP 1,008,595 (EP '595). Applicants traverse the rejection and respectfully request the withdrawal thereof.

EP '595 relates to polyethylene (see examples 1-34), ethylene/propylene copolymer (see examples 35-42) and ethylene/1-hexene copolymer (see examples 43-45). Applicants submit that EP '595 fails to disclose or suggest polymers of polypropylene, polybutene and propylene/C₄₋₂₀ copolymer as recited in the presently claimed invention. As such, this rejection should also be withdrawn.

The Examiner also rejects claims 1, 6, 27, 29, 30, 32 and 45-56 as anticipated by or obvious over JP 2000-119316 (JP '316). Applicants traverse the rejection and respectfully request the withdrawal thereof.

Applicants submit that the present invention is patentably distinct from the disclosure in JP '316. JP '316 only discloses polyethylene. JP '316 fails to disclose or suggest polymers of polypropylene, polybutene and propylene/C₄₋₂₀ copolymer as recited in the presently claimed invention. As such, this rejection should also be withdrawn.

Conclusion


As Applicants have addressed and overcome all rejections in the Office Action, Applicants respectfully request that the rejections be withdrawn and that the claims be allowed.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Kecia Reynolds (Reg. No. 47,021) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.


If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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